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## PART III—SECTION 4

### Miscellaneous Notifications including Notifications, Orders, Advertisements and Notices issued by Statutory Bodies

#### RESERVE BANK OF INDIA

##### Issue Department

##### NOTICE

New Delhi, the 25th August 1958

Portions of the following note of the Delhi Office of Issue are stated to have been destroyed and an application for payment of its value has been received from the person/party whose name is shown against the number(s). Any other person/party who consider(s) himself/themselves as having a right to it is/are warned to communicate at once with the undersigned.

Register No.—WD.5/58.

Note No.—N/2-767989.

Value—Rs. 100.

Name and address of the applicant—Shri J. K. Rath, Raisinghnagar, Distt. Sri Ganganagar.

M. L. BHALLA  
Currency Officer

#### DEPARTMENT OF MINES

##### NOTIFICATIONS

Dhanbad, the 18th August 1958

**No. Board/7642/58**—In accordance with the provision laid down in Regulation 13(5) of the Coal Mines Regulations, 1957, the following byelaws made under Regulation 13(4) for the conduct of examinations for, and grant of, managers' certificates of competency are published:

#### BYE-LAWS FOR THE CONDUCT OF EXAMINATIONS FOR, AND GRANT OF, MANAGERS' CERTIFICATES OF COMPETENCY

**1. Type and Extent of Training**—(1) For purposes of Regulation 16(2)(a), practical experience as a workman on different operations shall be approved as below:

- |  |   |
|--|---|
| (i) Experience as coal miner; or operator of coal face machinery.  | Upto 2 years.   |
| (ii) Experience in shotfiring; timbering; stone-work or sinking.   | Upto 18 months.   |
| (iii) Experience in taking measurements/samples of mine air or mine dust; on haulage and track work; or as survey assistant or chair-man; or as electrician or mechanic. | Upto one year, (including experience under clauses (2) and (3)) |
| (iv) Experience as banksman and onsetter; operator of winding/haulage machinery and of pumps and mechanical ventilators.   | Upto six months.  |

(2) For purposes of Regulation 16(2)(a), practical experience as a mining apprentice shall be approved as below: Experience on practical mining research work, if carried out in the workings belowground, may also be approved upto a maximum period of one year.

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|--|----|------------------|
| (i) Experience on general mining work        | .. | In full.         |
| (ii) Experience on ventilation and dust work | .. | Upto one year.   |
| (iii) Experience on survey work              | .. | Upto six months. |

(3) For purposes of Regulation 16(2)(b), practical experience of underground officials shall be approved as below:

- |  |    |                  |
|--|----|------------------|
| (i) Experience as sirdar, overman, ventilation officer, safety officer, assistant manager and under manager etc. | .. | In full          |
| (ii) Experience as surveyor or engineer  | .. | Upto six months. |

Experience of other officials may be approved to an extent determined by the Board, provided that such official exercised real responsibility involving actual control and direction of some type of mining work. In case of such experience, the exact nature of work performed and degree of responsibility should be stated in the certificate.

(4) Only such practical experience in opencast mines would be approved as has been obtained in mines having an average monthly output of not less than 2,500 tons of coal; and the extent of experience approved shall depend on the size, and degree of mechanisation, of the mines.

(5) Only such practical experience in metalliferous mines would be approved as has been obtained in mines having an average daily employment of not less than 60 persons belowground; and the extent of experience approved shall depend on the size, and degree of mechanisation, of the mines.

(6) With effect from 1961, the practical experience of a candidate shall be approved only upto the last date fixed for receiving applications.

(7) Practical experience extending over a period of less than three months in case of workers, and four weeks in case of officials and mining apprentices, at a time shall not be approved.

(8) Every certificate of practical experience should contain precise information about the capacity in which the candidate worked, the nature of work done, and the dates of commencement and termination of experience at each mine. No certificate of practical experience shall be considered unless it is granted by the manager of the mine. Every such certificate shall also carry the signature of the applicant, attested by the manager. With effect from 1961, no certificate of practical experience shall be accepted unless it is in a form prescribed by the Board.

**2. Frequency of examinations**—The examinations shall be held once at least in every year.

**3. Applications to be supported by original certificates etc.**—No application shall be considered unless it is supported by original certificates as to qualifications, practical experience, age, sound health and character, and is accompanied by evidence that the prescribed fee has been paid. A certificate of practical experience shall not be returned to the candidate: provided that, till 1961, a certificate not made out in the form prescribed under byelaw 1(8) may be returned if it is accompanied by a copy duly attested by a Gazetted Officer.

4. *Appointment of examiners*—(1) So far as practicable, the examiners appointed by the Board for each of the examinations for the First Class Managers' Certificate and the Second Class Managers' Certificate shall be two or more mining engineers, each holding the First Class Managers' Certificate, and a Regional Inspector of Mines who shall also act as the Secretary for the examination.

(2) Except in an emergency, no member of the Board shall act as an examiner.

5. *Subjects and syllabus for examination*—(1) The candidates shall be examined in the following five subjects:

- (a) Winning and Working.
- (b) Mine Ventilation, Explosions Fires, Inundation.
- (c) Mining Machinery.
- (d) Mine surveying.
- (e) Mining Legislation and Management.

(2) The syllabus for the examination for the First Class Managers' Certificate shall be as laid out in Appendix I, and for the Second Class Managers' Certificate as laid out in Appendix II.

6. *Type of examination*—(1) The examination for each subject shall consist of a written paper (of three hours' duration) and an orals test; so however that, in case of candidate who has not reached the standard laid down in Byelaw 8(1), the examiners may eliminate the orals test.

(2) Questions for each written paper shall be prepared by the examiner concerned and submitted to the Board. Every question paper shall be set by the Board in consultation with the examiner concerned.

(3) The orals test may be held at a date after the written examination and notified to every candidate concerned by the Secretary. The notice shall also indicate the place of the orals test.

7. *Subject Marks*—Every subject shall carry a total maximum of 140 marks—a maximum of 100 marks for the written paper and of 40 marks for the orals test.

8. (1) In order to qualify for the orals test, a candidate must obtain, in the written examination, not less than 40 per cent of the maximum marks each in at least four of the five papers and not less than 50 per cent of maximum marks of the five papers taken together.

(2) In order to pass the examination, a candidate must obtain:

- (i) not less than 40 per cent of the maximum marks in each of the five subjects, taking the written examination and the orals test separately,
- (ii) not less than 50 per cent of the maximum marks in aggregate of written examination and orals test, taken separately, and
- (iii) an aggregate of not less than 60 per cent of the maximum marks of the written examination and the orals test taken together.

9. *Re-examination in One or More Subjects*—(1) If a candidate has satisfied the provisions of clauses (ii) and (iii) of byelaw 8(2) and has also obtained not less than 40 per cent of the maximum marks in the orals test in each of the subjects, but has failed to obtain 40 per cent of the maximum marks in the written examination in one of the five subjects, he shall be eligible for re-examination in the subject in which he has so failed, at the next succeeding written examination.

(2) If a candidate has obtained:

- (i) in the written examination, not less than 40 per cent of the maximum marks in each of the subjects, and not less than 60 per cent of the maximum marks in all the subjects taken together;
- (ii) in the orals test, not less than 50 per cent of the maximum marks in aggregate, but has failed to obtain 40 per cent of the maximum marks in any one or two subjects,

he shall be eligible for re-examination in the subject or subjects in which he has so failed, at the next succeeding orals test.

(3) Every candidate who becomes eligible to be re-examined under Clauses (1) and (2) of this Byelaw, shall be duly informed of the fact by the Secretary:

Provided that if any such candidate is unable, by reason of illness, to attend at the next succeeding examination aforesaid, he may at the discretion of the Board be permitted to be re-examined at the next respective succeeding examination.

(4) A candidate re-examined under this Byelaw shall be deemed to have passed in the examination as a whole if he obtains not less than 60 per cent of the maximum marks in the written paper or the orals test, as the case may be, in the subject or subjects concerned.

10. *Conduct of the Written Examination*—All candidates shall conduct themselves as required by the Secretary. The rules laid down in Appendix III shall apply to the conduct of the written examination.

11. *Declaration of Results*—The results of the examinations, as approved by the Board, shall be announced by the Secretary on a date fixed by the Board.

#### APPENDIX I

##### SYLLABUS FOR EXAMINATION FOR FIRST CLASS MANAGER'S CERTIFICATE

###### (a) *Winning and Working*

Geological features of coalfields. Nature and occurrence of coal. Description of Indian coalfields. Application of geology to mining.

Methods of boring. Boring through disturbed strata. Bore-hole surveying.

Methods of sinking. In ordinary and water-logged grounds. In running sand etc. Freezing, cementation and other special methods. Shaft supports, temporary and permanent. Tubbings.

Driving of incline shafts and drifts.

Siting, development and layout of mines, including surface and underground arrangements. Layout and development of shaft-top, pit-bottom and haulage arrangements.

Opencast methods of mining. Different layouts. Mechanised quarrying with deephole blasting and heavy machinery. Benching and other safety precautions.

Underground mining. Methods of work (Longwall, Pillar and Stall, American modifications, Horizon mining etc.). Influence of depth, seam thickness, inclination etc. on selection of method of work. Conditions peculiar to India.

Development schemes. Methods of depillaring. Longwall mining.

Mechanised mining. Modern layouts and designs. Mechanised stone drifting.

Support of strata. Roadway and face supports, their types, setting, withdrawal etc. Packing and stowing.

Roof control. Theories of ground movement. Theories of strata control. Strength of rock. Shaft pillars. Protection of surface structures. Subsidence. Problems of deep mining; bumps.

Use of explosives. Blasting techniques in coal, stone etc.; and their relative efficiency. Simultaneous shotfiring.

###### (b) *Mine Ventilation, Explosions, Fires, Inundation*

Laws of airflow in mines. Theory of air resistance etc. Resistance and splitting problems.

Natural ventilation.

Mechanical ventilators; different types, their efficiency and characteristics. Fan accessories, Booster and auxiliary fans. Ventilation of headings and sinking shafts. Distribution, measurement and control of air in mines. Reversal of ventilation.

Heat and humidity. Sources, effects and control of heat in mines. Geothermic gradients. Cooling of air.

Ventilation planning. Pollution of air in mines. Determining requirements of ventilation. Determination of size of shafts, airways etc. Design of ventilation systems. Ventilation surveys. Ventilation plans.

Firedamp and coal dust explosions, their causes and prevention. Inflammability of firedamp and coal dust.

Occurrence, properties, characteristics, detection and measurement of firedamp. Dilution of firedamp, including methods of drainage.

Suppression and treatment of coal dust. Properties of stone dusts. Sampling and analysis of road dusts.

Flame and electric safety lamps. Their design, use and maintenance. Testing of safety lamps. Lamp houses and organisations.

Development of safe explosives. Permitted and EqS explosives. Composition and testing of safe explosives. Millisecond detonators. Alternatives to explosives.

Fires and spontaneous heating. Methods of preventing, detecting and controlling mine fires. Sealing off fire-areas. Build-up of extinctive atmosphere.

Firefighting, both on surface and belowground.

Sources of danger from water. Precautions to prevent inundations and irruptions of water. Boring machines for exploratory workings. Water dams. Water lodgments. Water danger plans.

Recovery of mines after explosions, fires and inundations. Reports on such occurrences.

#### (c) Mining Machinery

Strength of materials. Applied Mechanics.

Machine Design. Different types of gears and drives. Bearings, collars and joints. Brakes and friction clutches. Governors.

Machine tools and workshop processes.

Generation, transmission and utilization of power. Steam, electricity and compressed air. Safety aspects.

Heat engines. General outline of working principles of steam generators and auxiliary equipment. Condensing plant. Reciprocating steam engines. Turbines. Internal combustion engines.

Conduct of gas, oil and steam engine trials. Boiler trials.

Application of electricity in mines. Motors, switchgear, other appliances. Circuit protection, remote control and safety precautions. Electric cables, their installation.

Mechanical efficiency of engines. Measurement of indicated and brake horsepower.

Drilling, cutting and loading machines. Cutter loaders, mechanical picks and other modern mining machinery.

Design of winding, haulage and drainage systems.

Winding equipment. Winding engines. Winding systems. Koepe and skip winding. Drums and sheaves. Ropes and guides. Braking and signalling equipment. Decking arrangements. Overwind prevention and safety devices. Installation, examination and testing of winding equipment.

Haulage and Transport. Haulage systems and layout. Types of rope haulages, locomotives, conveyors. Details of haulage roads, rails and tracks. Self-acting inclines. Aerial ropeways. Haulage of men belowground. Pits and mine cars. Creepers and trippers. Signalling. Safety devices.

Pumping. Types of pumps. Laying of water mains. Dealing with acid water. Sand pumps. Drainage. Lodgments.

Plants for screening, sizing and washing of coal.

#### (d) Mine Surveying

Measurement of distances. Chain surveying. Errors in chaining and plotting. Optical square.

Plane table surveying.

Use of magnetic needle. Magnetic declination, its determination. Forms of miners' dials and other compass instruments. Dialling. Loose and fast needle surveying.

Theodolites; types, adjustments and uses. Triangulation. Base-line and angle measurements. Precise traversing. Tacheometry.

Levels. Geometrical, trigonometric and physical levelling. Contours and contouring. Traverse, co-ordinates and levelling problems.

Use, care, testing and adjustment of instruments.

Plotting by protractor and co-ordinates. Use of scales and drawing instruments.

Dip and strike problems. Outcrop problems. Borehole surveying. Surveying calculations.

Computation of areas and volumes. Earthwork. Building estimation.

Laying out of rail-curves, surface and underground.

Principles of reinforced concrete construction, including design of beams, columns, retaining walls and other structures. Properties of other building material.

Methods of correlation, surface and underground. Measurement of depths of inclined roadways and shafts.

Determination of azimuth, latitude and longitude.

Propagation and adjustment of errors. Theory of errors.

Types of plans. Their preparation, care, storage and preservation.

Legislation concerning mine plans and sections. Duties and responsibilities of surveyor.

#### (c) Mine Management, Legislation and General Safety

Mine Organisation. Principles of management and industrial discipline. Personnel management.

Recruitment, selection, training and control of staff.

Mines Act, and Regulations, Rules and Byelaws etc. made thereunder. Electricity Act and Rules applicable to coal mines. Other legislation applicable to coal mines.

Accidents. Their causes and prevention. Accident statistics. Rates of accidents. Relation between accidents and technical efficiency. Accident reports.

First aid and ambulance work.

Investigation after explosions.

Mine rescue. Mine gases and their physiological effects. Rescue equipment. Resuscitation and reviving apparatus. Selection and training for rescue work.

Silicosis and pneumokoniosis. Physiological aspects of breathing in dust-laden atmospheres. Dust-sampling and sampling instruments. Methods of counting and analysis.

Other miners' diseases. Their symptoms, prevention and treatment.

Lighting. General principles of artificial lighting. Lighting standards and their assessment. Lighting from electric mains.

Sanitation, and health.

#### APPENDIX II

##### SYLLABUS FOR EXAMINATION FOR SECOND CLASS MANAGER'S CERTIFICATE

#### (a) Winning and Working

Nature and occurrence of coal. Geological features of coal-fields. Description of Indian coalfields.

Methods of boring. Boring through disturbed strata.

Methods of sinking. In ordinary and water-logged grounds. Shaft supports, temporary and permanent.

Driving of drifts.

Layout and development of simple shaft-top, pit-bottom and haulage arrangements.

Opencast methods of mining. Different layouts. Mechanised quarrying with deephole blasting and heavy machinery. Benching and other safety precautions.

Underground mining. Methods of work: Longwall, Pillar and Stall. Methods of depillaring. Longwall mining. Stone drifting. Support of strata. Roadway and face supports, their types, setting, withdrawal etc. Packing and stowing. Roof control; Bumps. Shaft pillars. Protection of surface structures, Subsidence.

Use of explosives in coal, stone etc.; Simultaneous shot-firing.

#### (b) Mine Ventilation, Explosions, Fires, Inundation

Natural ventilation. Mechanical ventilators. Fan accessories. Booster and auxiliary fans. Ventilation of headings and sinking shafts. Distribution, measurement and control of air in mines. Reversal of ventilation.

Heat and humidity.

Pollution of air in mines. Determining requirements of ventilation. Ventilation surveys. Ventilation plans.

Firedamp and coal dust explosions; their causes and prevention. Inflammability of firedamp and coal dust.

Occurrence, properties, characteristics, detection and measurement of firedamp.

Suppression and treatment of coal dust. Properties of stone dusts. Sampling and analysis of road dusts.

Flame and electric safety lamps. Their design, use and maintenance.

Development of safe explosives. Permitted and EqS explosives. Alternatives to explosives.

Fires and spontaneous heating. Methods of preventing, detecting and controlling mine fires. Sealing off fire-areas.

Firefighting, both on surface and belowground.

Sources of danger from water. Precautions to prevent inundations and irruptions of water. Boring machines for exploratory workings. Water dams. Water lodgments. Water danger plans.

Recovery of mines after explosions, fires and inundations.

(c) *Mining Machinery*

Strength of materials. Applied Mechanics.

Different types of gears and drives. Bearing and joints. Brakes.

Machine tools and workshop processes.

Generation, transmission and utilization of power. Steam, electricity and compressed air. Safety aspects.

General outline of working principles of steam generators. Reciprocating steam engines. Internal combustion engines.

Application of electricity in mines. Motors, switchgear, electric cables, their installation. Safety precautions.

Drilling and cutting machines.

Design of haulage and drainage systems.

Winding equipment. Winding engines. Drums and sheaves. Ropes and guides. Braking and signalling equipment. Decking arrangements. Safety devices. Installation, examination and testing of winding equipment.

Haulage and transport. Haulage systems and layouts. Types of haulages. Rope haulages. Details of haulage roads, rails and tracks. Self-acting inclines. Pit-tubs, creepers and tipplers. Signalling. Safety devices.

Pumping. Types of pumps. Laying of water mains. Dealing with acid water. Drainage. Lodgments.

Plants for screening and sizing of coal.

(d) *Mine Surveying*

Measurement of distances. Chain surveying. Errors in chaining and plotting. Optical square.

Plane table surveying.

Use of magnetic needle. Magnetic declination; its determination. Forms of miners' dials and other compass-instruments. Dialling. Loose and fast needle surveying.

Levels. Geometrical and physical levelling. Contours and contouring.

Traverse and levelling problems.

Use, care, testing and adjustment of instruments.

Plotting by protractor and co-ordinates. Use of scales and drawing instruments.

Dip and strike problems. Outcrop problems. Surveying calculations.

Computation of areas and volumes. Earthwork.

Laying out of rail-curves, surface and underground.

Types of plans. Their preparation, care, storage and preservation.

Legislation concerning mine plans and sections.

(e) *Mine Management, Legislation and General Safety*

Mine Organisation. Recruitment and control of staff.

Mines Act, and Regulations, Rules and Byelaws etc. made thereunder. Other legislation applicable to coal mines.

Accidents. Their causes and prevention. Accident reports. First Aid.

Mine rescue. Mine gases and their physiological effects. Rescue equipment. Resuscitation and reviving apparatus. Selection and training for rescue work.

Silicosis and pneumokoniosis. Dust-sampling and analysis.

Other miners' diseases. Their symptoms, prevention and treatment.

Lighting standards and their assessment.

Sanitation, and health.

APPENDIX III

RULES GOVERNING THE CONDUCT OF THE WRITTEN EXAMINATION

1. No candidate shall be admitted into the examination hall until he has produced an authorisation issued by the Secretary. No candidate arriving more than 30 minutes late shall be permitted to attend the examination; and any such candidate shall not be eligible for any extra compensatory time.

2. Before entering the examination hall, every candidate shall leave all books, notes and papers etc. outside.
3. Every candidate shall be required to sign in a register, in which his roll number would be recorded.
4. Paper will be supplied, and no paper other than that so supplied shall be used.
5. Names shall not be written on the answer book. Every candidate shall write his roll number at the top of every page of the paper on which he writes the answers to the questions.
6. Ink will be provided. Candidates shall bring their own pens and pencils, drawing pens and drawing instruments, including protractor.
7. Slide Rules may be used. Candidates will be supplied with logarithmic tables if considered necessary by the examiner.
8. The calculations and other work by which a result is obtained shall be clearly shown, on the left-hand side page, in immediate connection with the answer to the question under reference.
9. Sketches may be made to illustrate answers. When sketches are asked for, it should be understood that, unless otherwise stated, free hand sketches with dimensions are all that is necessary; and candidates need not spend time in making finished drawings.
10. Any candidate desiring to consult the examiner or requiring any paper or other material should stand in his seat to draw attention, but should not shout or call out.
11. Any candidate speaking to any other candidate, or consulting any book or notes, or using paper other than that supplied by the Board, or using any other unfair means or acting in a manner considered improper by the examiner, shall be liable to be disqualified. The Board may, in case of such candidate, use its discretion as to permitting him to sit for any future examination.
12. No candidate shall leave the examination hall before one hour has passed after the commencement of the examination.
13. When a candidate has completed the answers to the questions, or when the time allowed for answering the questions has elapsed, or when a candidate has been disqualified under Rule 11, he must hand over the answer book to the Secretary and at once leave the examination hall.

The 18th August 1958

**No. Board/7643/58**—In accordance with the provision laid down in Regulation 13(5) of the Coal Mines Regulations, 1957, the following bye-laws made under Regulation 13(4) for the conduct of examinations for, and grant of, mine surveyors' certificates of competency are published:

**BYE-LAWS FOR THE CONDUCT OF EXAMINATIONS FOR, AND GRANT OF MINE SURVEYOR'S CERTIFICATES OF COMPETENCY**

1. *Type and Extent of Training*—(1) The practical experience of a candidate shall be approved only upto the date fixed for receiving applications.

(2) Practical experience extending over a period of less than four weeks at a time shall not be approved.

(3) Every certificate of practical experience should contain precise information about the capacity in which the candidate worked, the nature of work done, and the dates of commencement and termination of experience at each mine. No certificate of practical experience shall be considered unless it is signed by the manager of the mine. Every such certificate shall also carry the signature of the applicant, attested by the manager. With effect from 1961, no certificate of practical experience shall be accepted unless it is in a form prescribed by the Board.

2. *Frequency of examinations*—The examinations shall be held once at least in every year.

3. *Applications to be supported by original certificates etc.*—No application shall be considered unless it is supported by original certificates as to qualifications, practical experience, age, sound health and character, and is accompanied by evidence that the prescribed fee has been paid. *The certificates of practical experience shall not be returned to the candidate:* Provided that, till 1961, a certificate not made out in the form prescribed under bye-law 1(3) may be returned if it is accompanied by a copy duly attested by a Gazetted Officer.

4. *Appointment of Examiners*—(1) So far as practicable the examiners appointed by the Board shall be one or more persons, holding the Mine Surveyor's Certificate, and a Regional Inspector of Mines who shall also act as the Secretary for the examination.

(2) Except in an emergency, no member of the Board shall act as an examiner.

5. *Syllabus and Type of Examination*—(1) The examination shall consist of two written papers and an orals test; so however that, in case of candidate who has obtained an aggregate of less than 100 marks in the written papers, the examiners may eliminate the orals test.

(2) The syllabus for the examination shall be as laid down in Appendix I.

(3) Questions for each written paper shall be prepared by the examiner concerned and submitted to the Board. The question papers shall be set by the Board in consultation with the examiner concerned.

(4) The orals test may be held at a date after the written examination and notified to every candidate concerned by the Secretary. The notice shall also indicate the place of the orals test.

6. *Subject Marks*—The examination shall carry a total maximum of 300 marks—a maximum of 100 marks for each of the two written papers and of 100 marks for the orals test.

*Qualifying and Pass Marks etc.*—In order to qualify for the orals test, a candidate must obtain not less than 100 marks in the written examination; and in order to pass the examination, not less than 50 marks in the orals test and a total aggregate of not less than 180 marks.

8. *Conduct of the Written Examination*—All candidates shall conduct themselves as required by the Secretary. The rules laid down in Appendix II shall apply to the conduct of the written examination.

9. *Declaration of Results*—The results of the examinations, as approved by the Board, shall be announced by the Secretary on a date fixed by the Board.

#### APPENDIX I

##### SYLLABUS FOR THE EXAMINATION FOR MINE SURVEYOR'S CERTIFICATE

###### First Paper

Measurement of distances. Chain Surveying. Errors in chaining and plotting. Optical square.

Plane table surveying.

Use of magnetic needle. Magnetic declination; its determination. Forms of Miners' dials and other compass instruments. Dialling. Loose and fast needle surveying.

Theodolites; types, adjustments and uses. Triangulation. Base-line and angle measurements. Precise traversing.

Tacheometry.

Levels. Geometrical, trigonometric and physical levelling. Contours and contouring.

Traverse, co-ordinates and levelling problems.

Use, care, testing and adjustment of instruments.

###### Second Paper

Plotting by protractor and co-ordinates. Use of scales and drawing instruments.

Dip and strike problems. Outcrop problems. Borehole surveying. Surveying calculations.

Computation of areas and volumes.

Laying out of rail-curves, surface and underground.

Methods of correlation, surface and underground. Measurement of depths of inclined roadways and shafts.

Determination of azimuth, latitude and longitude.

Propagation and adjustment of errors. Theory of errors.

Types of plans. Their preparation, care, storage and preservation.

Legislation concerning mine plans and sections. Duties and responsibilities of surveyor.

Geological map reading.

#### APPENDIX II

##### RULES GOVERNING THE CONDUCT OF THE WRITTEN EXAMINATION

1. No candidate shall be admitted into the examination hall until he has produced an authorisation issued by the Secretary. No candidate arriving more than 30 minutes late shall be permitted to attend the examination; any such candidate shall not be eligible for any extra compensatory time.
2. Before entering the examination hall, every candidate shall leave all books, notes and papers etc. outside.
3. Every candidate shall be required to sign in a register in which his roll number would be recorded.
4. Paper will be supplied, and no paper other than that so supplied shall be used.
5. Name shall not be written on the answer book. Every candidate shall write his roll number at the top of every page of the paper on which he writes the answer to the questions.
6. Ink will be provided. Candidates shall bring their own pens and pencils, drawing pens and drawing instruments, including protractor.
7. Candidates will be supplied with logarithmic tables if considered necessary by the examiner.
8. The calculations and other work by which a result is obtained shall be clearly shown on the left-hand side page, in immediate connection with the answer to the question under reference.
9. Sketches may be made to illustrate answers. When sketches are asked for, it should be understood that, unless otherwise stated, free hand sketches with dimensions are all that is necessary; and candidates need not spend time in making finished drawings.
10. Any candidate desiring to consult the examiner or requiring any paper or other material should stand in his seat to draw attention, but should not shout or call out.
11. Any candidate speaking to any other candidate, or consulting any book or notes, or using paper other than that supplied by the Board, or using any other unfair means or acting in a manner considered improper by the examiner, shall be liable to be disqualified. The Board may, in case of such candidate, use its discretion as to permitting him to sit for any future examination.
12. No candidate shall leave the examination hall before one hour has passed after the commencement of the examination.
13. When a candidate has completed the answers to the questions, or when the time allowed for answering the questions has elapsed, or when a candidate has been disqualified under Rule 11, he must hand over the answer book to the Secretary and at once leave the examination hall.

S. S. GREWAL

Chief Inspector of Mines in India

and  
Chairman, Board of Mining Examinations

#### THE INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA

##### NOTIFICATION

New Delhi 1, the 30th August 1958

No. 4-CA(1)/15/58-59—In pursuance of Regulation 12 of the Chartered Accountants Regulations, 1949, it is hereby notified that in exercise of the powers conferred by clause (c) of sub-Section (1) of Section 20 of the Chartered Accountants Act, 1949, the Council of the Institute of Chartered Accountants of India has removed from the Register of Members, with effect from the 3rd day of February 1958, owing to death the name of Shri Minoo Darabsha Wadia, "Dawood Mahal" Gowalia Tank Road, Bombay 26. (Membership No. 788).

E. V. SRINIVASAN

Secretary

